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EXAMINER

USTARIS, JOSEPH G

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2424

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/502,302	Applicant(s) ANDREYKO ET AL.	
	Examiner JOSEPH G. USTARIS	Art Unit 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 14 is/are rejected.
- 7) ☒ Claim(s) 7-11, 15-19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 20, 2009 has been entered.

Response to Arguments

2. The objection to the claims and drawings are now withdrawn in view of the amendments.

The 35 U.S.C. 112, second paragraph rejection of claims 7-11, 15, 16-19, and 21 are now withdrawn in view of the amendments.

Applicant's arguments with respect to claim 14 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed August 20, 2009 have been fully considered but they are not persuasive.

Applicant argues with respect to claim 1, that Keeney does not disclose generating interrogation signals. However, reading the claims in the broadest sense, Keeney does meet that limitation in the claims. Keeney discloses generating interrogation signals (See Fig. 2, Q-Map 50) with said computing component, taking into

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account the eye resolution (e.g. area of interest), communicated in the coding characteristics (See Fig. 2), said interrogation signal include a first category containing information on the boundaries (See Fig. 3, 12; boundaries of area of interest) of at least one sector of the video image and/or a second category containing information on the quality levels (See Fig. 3, 12; area of interest will have higher quality levels) of at least one sector of the video image at least for one user and/or for one group of users (See Fig. 2 and 3; multiple user eyes were used to determine the various area of interests).

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 14, it is unclear what “synchronous transferring a first group” and “synchronous transferring a second group” is synchronized to. The language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement (See MPEP 2173.02).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Keeney et al. (US007027655B2).

Regarding claim 1, Keeney et al. (Keeney) discloses a method of interactive television wherein a video signal is generated based on user visual perception of video images (See Fig. 2) comprising the steps of:

forming a video signal of an entire frame of a video image and/or forming a video image or video signals of sectors of said video image (See Fig. 2, 10) with substantially equal quality levels (See Fig. 2, 10; wherein the motion picture image data have one equal quality level), or a video image with different quality levels, in a video signal formation component (See Fig. 2, e.g. the provider of the original motion picture image data or 90);

converting the video signal at least one time in at least one video signal conversion component (Fig. 2, 40; e.g. a MPEG encoder) into a series of video signals

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of the video image (e.g. I,P, and B frames) (See col. 1 line 66 – col. 2 line 18 and col. 8 lines 20-28) and/or

converting the level quality of the video image sectors (See col. 1 line 66 – col. 2 line 18; the Q factor level), and/or

changing boundaries of the video image (See col. 1 lines 66- col. 2 line 18, defining blocks with higher activity),

transmitting said video signals via data channels (See Fig. 2; col. 8 lines 20-28), at least, one said conversion component (See Fig. 2, 40) and, to at least, one display component (See Fig. 2, 70 and 10'),

forming a video image on the display component (See Figs. 1 and 2, 70 and 10'), said video image being perceived, at least, by one user (See Fig. 2, 60),

determining eye characteristics (e.g. area of interest determined by the eyes of the users) by employing at least one sensor (See Fig. 2, 20) in operative communication with one eye of the user, said characteristics are defined relatively to the video image formed by the display component and perceived at an eye of said user (e.g. area of interest determined by the eyes of the users) (See col. 6 lines 16-41), and by employing data from said sensor to dynamically establish signal coding characteristics (See Fig. 2, 30; col. 6 lines 16-41, area of interest the eyes identified),

transmitting said signals having said coding characteristics to at least one computing component (See Fig. 2, 50; e.g. a Q-Map generator);

generating interrogation signals (See Fig. 2, Q-Map 50) with said computing component, taking into account the eye resolution (e.g. area of interest), communicated

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in the coding characteristics (See Fig. 2), said interrogation signal include a first category containing information on the boundaries (See Fig. 3, 12; boundaries of area of interest) of at least one sector of the video image and/or a second category containing information on the quality levels (See Fig. 3, 12; area of interest will have higher quality levels) of at least one sector of the video image at least for one user and/or for one group of users (See Fig. 2 and 3; multiple user eyes were used to determine the various area of interests);

transmitting said interrogation signals (e.g. Q-Map) to at least components of the following types: said formation component (See Fig. 2, 90), said conversion components (See Fig. 2, 40), and said display components (See Fig. 2, 10'), wherein the interrogation signals are taken into account with a respective concurrent adjustment in

forming of video signals (See Fig. 2, 40; e.g. forming the video signals at the encoder 40),

converting of video signals (See Fig. 2, 40; e.g. converting the video into an MPEG video) and

forming of video image (See Fig. 2, 10'; e.g. forming the image on the screen).

Regarding claim 2, wherein the computing component generates said interrogation signals for a group of users (See Fig. 2, group of users 60), said group of users capable of containing a number of sub-groups (See Fig. 2, e.g. each user of the group of users 60), further comprising: summarizing interrogation signals for the users of said group, and/or said sub-groups of users (See Fig. 2, Q-map and Fig. 3, 12; col. 5

lines 58-64; the Q-Map represents a summarization of all the signals from the group of users).

Regarding claim 3, wherein said summarizing interrogation signals of the first category further comprises: coding external boundaries (See Fig. 3, 12; the external boundaries of the area of interests) of video image sectors of an equal quality level for said users or said group of users (See Fig. 3, 12; the area of interests represents image sectors of equal quality level based on what the group of users identify as an area of interest); in this connection, for each interrogation signal (e.g. from each user) the respective external boundary of the video image sector of each quality level comprises external boundaries of all video image sectors with said each quality level (See Fig. 3, 12; col. 6 lines 16-41; the area of interests are defined by external boundaries and will all have a higher quality level).

Regarding claim 4, wherein said summarizing of interrogation signals of the second category further comprises: coding of quality levels (See Fig. 3, 12; the area of interests will all have a higher quality level) of video image sector for said users or said group of users (See Fig. 3, 12; the area of interests represents image sectors of similar quality level based on what the group of users identify as an area of interest); in this connection, the quality level of each sector of the video image for said user or said group of users is coded as the highest quality level for the corresponding sector of the video image for each said user or each said group of users (See Fig. 3, 12; col. 5 lines 58-64 and col. 6 lines 16-41; the area of interests are will all have a higher quality level).

Regarding claims 5/3, 5/2, 5/1, wherein said forming video signals is provided for said different quality levels(See Fig. 2, 70; col. 1 line 66 – col. 2 line 18; the Q factor allows blocks with more activity to have a higher quality, i.e. different quality levels), and further comprises:

transmitting said video signals via data channels, at least, to one said conversion component (See Fig. 2, 40),

subjected to said first category interrogation signals, changing the boundaries of each sector of the video image in the conversion component (See Fig. 2, 40 and Q-Map; col. 5 lines 58-64; the Q-Map is used to add/change boundaries) except for the sector of the highest quality level (See Fig. 3, 12; e.g. the blocks already defined as an area of interest), said boundaries including internal and external boundaries, the internal boundaries (See Fig. 3, 12 and 50; the boundaries of the area of interests are also considered internal boundaries because that are within the video image) of all the sector, except the highest quality level sector, correspond to the external boundaries of the video signal (See Fig. 3, 50; the boundaries are also external with respect to the area of interest) with the next higher quality level (e.g. the boundaries change from frame to frame based on the Q-Map for each frame, wherein the boundaries divide the high quality level from the low quality level).

Regarding claim 6, wherein: said converting a video signal of the entire video image is provided into a series of video signals of the entire video image with different quality levels (See Fig. 2, 70; col. 1 line 66 – col. 2 line 18; the original Q factor) (e.g.

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the original Q factor of the MPEG standard is considered the lower quality level when compared to the Q-Map, which defines different quality levels).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keeney et al. (US007027655B2) in view of Griepentrog (US005894327A).

Claim 14 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim.

However, Keeney does not disclose wherein said display component is represented by a conventional CRT including: a screen, a gun-cathode, an electronic beam deflector, a size screen dot unit for dynamic control of the dot on the screen; said method further comprises:

successive transferring video signals of said sectors with different quality levels to the gun-cathode;

synchronous transferring a first group of said interrogation signals for said sectors each, wherein said interrogation signals of the first group carry encoding information on the boundaries of said each sector, said transferring the interrogation signals of the first group is provided to said electronic beam deflector; and

synchronous transferring a second group of said interrogation signals for said sectors each, wherein said interrogation signals of the second group carry encoding information on the quality levels of said sectors, and said transferring the interrogation signals of the second group is provided to said size screen dot unit.

Griepentrog discloses a video display system. Griepentrog discloses that the display component is represented by a CRT (See Fig. 1, 30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Keeney to have the display component be represented by a conventional CRT, as taught by Griepentrog, in order to optimize the performance of the display system (See col. 2 lines 19-39).

Furthermore, applicant admits that a conventional CRT includes: a screen, a gun-cathode, an electronic beam deflector, and a size screen dot unit for dynamic control of the dot on the screen. Therefore, the CRT disclosed by Keeney in view of Griepentrog must include: a screen, a gun-cathode, an electronic beam deflector, a size screen dot unit for dynamic control of the dot on the screen. Furthermore, it would have been obvious that a conventional CRT in the system disclosed by Keeney in view of Griepentrog must:

successively transferring video signals of said sectors with different quality levels to the gun-cathode;

synchronously transferring a first group of said interrogation signals for said sectors each, wherein said interrogation signals of the first group carry encoding

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information on the boundaries of said each sector, said transferring the interrogation signals of the first group is provided to said electronic beam deflector; and

synchronously transferring a second group of said interrogation signals for said sectors each, wherein said interrogation signals of the second group carry encoding information on the quality levels of said sectors, and said transferring the interrogation signals of the second group is provided to said size screen dot unit,

in order to successfully produce an image on the screen that the user can see.

Allowable Subject Matter

9. Claims 7-11, 15, 16-19, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH G. USTARIS whose telephone number is (571)272-7383. The examiner can normally be reached on M-F 7:30-5 PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph G Ustaris/
Primary Examiner, Art Unit 2424